



SOUTH INDIAN HISTORY CONGRESS

Proceedings of the South Indian History Congress
Journal of the South Indian History Congress since 1981
ISSN No.: 2229-3671
UGC CARE Listed Journal

The Metallurgical Contacts Between South India and Eastern Coast of African Nations During Medieval Period

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Source: Proceedings of the South Indian History Congress 36(2016), pp. 1158-1164

Stable URL: http://journal.southindianhistorycongress.org/journals/articles/2016/SIHC_2016_V36_277.pdf

Published By: South Indian History Congress

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of Gita Pravachana. In a sense, Gita Pravachana had become a real path finder. If Bhagavata Gita is a complete and comprehensive philosophy of life, Gita Pravachana provides a means for of practicing that philosophy in day today life.

Vinobas whole life was founded on the strong edifice of Brahma Vidya, knowledge of

Supreme. The infinite depth of his spiritual recess, of his divine yogic experiences and of his unique identification with eternal truth and non-violence remain in the world in its full brilliance through zealous messengers destined for the purpose in the near future.

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THE METALLURGICAL CONTACTS BETWEEN SOUTH INDIA AND EASTERN COAST OF AFRICAN NATIONS DURING MEDIEVAL PERIOD

K. V. Ramakrishna Rao

Indian Maritime Trade with Africa: About the maritime trade of Eastern African ports with South India, many studies have been made. The archaeological evidences found there at Lamu archipelago, Malindi, Mombasa, Zanzibar, Mafia, Kilwa etc., have shown the maritime links of trading of goods and services by the people groups involved. The islands Lakshadweep, Maldives, Chagos archipelago, Seychelles, Saha de Malha, Mauritius, Reunion, Madagascar, Comoros helped the maritime traders and sailors to rest, repair and maintain their ships. The people groups obviously knew the respective languages during their trade, business and commercial interactions. The Arabs played the role of intermediaries in exchange, barter and distribution of goods and services between Indian Ocean countries and Europe. During the medieval period, the difference between the Arabs and the Mohammedans was clear, as the people groups

were not Islamized completely. In fact, before the advent of Islam, the movement of Indians to Africa had been very smooth without any maritime strife. The Swahili coast¹ people were not Mohammedans till 10th-11th centuries and their origin is shrouded with mystery, as historians have not come to any final conclusion. Swahilization of Arab culture and Arabization of Swahili culture and other social processes are interpreted for understanding of the existing culture². Nakhudas, nauvitakas, marakkalanayakans and such other expressions prove not only the ship-owning merchants³, but also traditional maritime sailors with all shipping expertise converted to Islam during the 950-1250 CE period when the Kadambas, Cholas and Sri Vijaya empires collapsed or disappeared mysteriously. However, the presence of Indians and their influence on the material and non-material culture were not denied.

People groups involved in maritime trade and activities: The South Indian maritime trade with East African coastal countries during medieval period has been very interesting and revealing throwing light on Pallava, Colas and Kadamba maritime trade and shipping. The movement of merchandise cargo from South Indian ports through Maldives, Chagos Archipelago, Mauritius, Reunion, Madagascar and coastal East Africa has been easiest the South Indian marine-traders⁴. Incidentally, these islands were used by the Pallava and Colas for their ship-building activities. Pallava sculptures, inscriptions and temples have been found in Maldives⁵. How the Pallavas could have exercised their influence far and wide distances from SEA countries to East African coast could be noted from these archaeological evidences found in those places. During Pallava, Colas and Kadamba period, the Indian metal workers had achieved highest state of art and their skill been a great demand throughout the world. The temple building activities provided skilled workers many opportunities in metallurgy, as fine tools, devices and implements made of ferrous and non-ferrous metals were required for carrying out different vocations. Though the royal patronage was there for the goods manufactured and service rendered, the trade groups were functioning independently. So also the sculptors, ore extractors, metal experts, alloy producer and other manufacturers were maintaining their autonomy. When the great dynasties suddenly disappeared, their activities continued.

Metallurgy and metallurgical contacts: The conversion of ore to metal to alloy so that it could be used for different practical purposes was known to the Indians for the last four to five millennium period. Archaeological investigations on the African subcontinent and on the Western Indian Ocean, at sites such as Chaul, Palshet, Sanjan and Kelshi (Gogte 2002) have yielded material remains

which point to nearly 2000 years of continuous interaction of East Africa and South Asia at least from the eighth century upto eighteenth century⁶. Correspondingly, the Marathas and Swamimalai metal workers had been very famous in those days, as they were producing all metal icons, utensils, coins etc., and supplying. That skill and quality standards of Maratha metal workers have been recorded in the Manimekhalai itself as “*Marathiya kammiyar*”. That scrap was imported to Kadamba factories and converted to icons and utensils and exported back to African and middle-eastern countries prove the well established metal working and exporting. Thus, such activities imports and exports were connected with shipping and maritime activities. Some examples are taken up and discussed in this paper about the Metallurgical contacts taken place between South India and Eastern coast of African nations during medieval period.

Shanga Lion found at Lamu District, Kenya: The finding of a bronze lion statuette⁷ at trading port of Shanga, Lamu District, Kenya, in January 1986 raised many questions. This is small 61 mm height bronze statue dated to 1100 CE and compared with that of Central and South Indian counterparts, because of close resemblances and casting techniques⁸. Moreover, the lion is easily comparable with the depiction noted on South Indian coins also starting from 1st century BCE with characteristic features. Horton and Blurton suggested that it could have served various purposes, possibly, as an item of royal regalia, a weight, or even as a part of a Hindu shrine perhaps dedicated to Durga⁹. E. C. L. During Caspers¹⁰ has pointed out that the practice of trading bronze animals within the Indian Ocean dates back to at least the 2nd millennium BC. The Shanga lion was manufactured with the melt of Chinese coins with “lost wax” casting method.

Lost Wax Casting technology and its spread to Africa: about the origin of Lost Wax casting method several hypotheses have been put forward¹¹. In the case of West African bronzes, Rober Dick-Read pointed out that such method could have been introduced into Africa from Srivijaya¹². James Hornell¹³ discussed elaborately about the Indonesian influence on East African culture. In fact, more South Indian influence was recorded as found from the illustrations cited and explained about the connected stories, ship-building, boat rituals, etc. Frank Willet¹⁴, T. Shah, N. Levzion and J.F.P. Hopkins and others claimed that it was introduced from outside, but did not point to the source specifically. The particular place Igbo Ukwu, where sub-Saharan Africa's earliest (ninth century CE) and most accomplished bronze castings were found, lies a thousand kilometers from the main trans-Saharan trade routes¹⁵, but within a few kilometers of the navigable channels of the Niger and Cross Rivers. T. Shah questioned the tracing the origin to Srivijaya¹⁶. But, during the medieval period, as the bronzes of the Cholas were famous and they were manufactured with the Lost Wax casting technology, and it spread to Kadambas, as noted by the Portuguese, it is possible that such technology could have gone there with the Indian metal workers who went there of the settlers converted later to Islam.

Kilwa marble panel containing Indian sculptural features: Another interesting object had been one metre long fragment of Gujarati marble found at Kilwa dating from c.14th century. Pearson pointed out that it could have been originated from a temple of Gujarat (Sutton 1998b:146m). In Mogadishu, many marble fragments of Indian origin were found during excavations. In Fakhr al-Din mosque, many pieces were found. The niche, pillar, side panel from a cenotaph and others of the tombs and mosque clearly show Indian features. Particularly, the Kilwa panel made of marble

evoked response from the researchers, as its reverse showed Indian evidence. Chittitk opined that the slab was taken 'from the rear of a statue idol' of about 10th century (Chittick 1974, 262). As Chittitk was able to establish, the Berlin panel displays traces of earlier carving in Indian style. The Islamic panel had been carved on the reverse of a slab originally worked as the threshold to a temple. Both the material, white marble and the style of the carving establish that this stone was quarried in western India and carved sometime in the 10th cent. CE. E. Lambourn pointed out the facts comparing the existing Gujarat marble sculptures with that of Kilwa mosque¹⁷. Here, again questions arise as to whether they were brought from Gujarat, temple constructed here and it was converted into a mosque.

"Shanga Lion" manufactured by Indians, Africans or Chinese?: About the authorship of "Shanga Lion", researchers have argued that it appears with African features, it was manufactured by the Africans. It was also argued that it was made out of Chinese coins and found at Shanga, it was cast by the Chinese. For Michael N. Pearson¹⁸, it was a real puzzle, for it seemed clear it was used in Hindu puja (worship), and that meant it would hardly be sold or used by a non-Hindu. But mosques in Shanga date from around 800 CE. Thus, he concluded that it might have been part of some regalia. From the archaeological evidences found from the east coast African sites, they were Islamized only during the 10th century onwards. The person buried at Kilwa could have been an Indian merchant, so that his belongings were buried along with his body. As the place name Shanga, the usage of copper Chinese coins used for the manufacture and the Chinese potteries found, it was also interpreted that the Lion statue could have been manufactured by the Chinese. Some interpreted that it was manufactured by Indians, but, at Kilwa itself i.e, the Indian metal workers there manufactured

with Indian metallurgical technology. As it was not required by any non-Hindu, why they should have been manufactured there and for whose use? Thus, it is evident that it was manufactured by Indians for their use. It implies that Indians were living peacefully before Islamization.

The origin and development of East African metallurgical skills: About the origin and development of metallurgical skills many suggestions have been offered by the researchers. Scientific analysis of the composition of bronzes found at Africa and South India and historical evidence of maritime goods prove that either, Indians exported such bronzes to Africa or the settled Indian metal workers created them. Roger Summer¹⁹ brought out the gold-mining techniques of Zimbabwe had been very similar to Deccan / South India. In fact, it was pointed out in 1898 itself by G. M. Theal²⁰. Caton Thompson²¹ thought that “*The trade connection with India is undoubtedly strong-indeed, I believe it to have been the primary stimulus which led to the development of the indigenous Zimbabwe culture*”. It has been suggested that gold was mined as early as A.D. 600 in Rhodesia by Asians, and also that the gold trade was important to the Zimbabwe state only after its initial development by a religious elite²². T. N. Huffman²³ argued that the suggestion that the argument that the Asians, specifically Indians, mined the first gold is based on similarities in the extraction methods in India and Rhodesia is untenable since the technology in question is too simple for cross cultural comparisons. Furthermore, the Kilwa chronicle states that Kilwa took over the Sofalan gold trade from other Arabs, not Indians and there is no obvious reason why Indians should not be mentioned had they been there first. But, there have been other factors also besides metallurgy. Hromnik²⁴ pointed out that the Indians of Africa were also responsible for the introduction of cattle and crops, the stone architecture of Great

Zimbabwe and by attracting Negroid labourers to the south, for the Bantu migrations as well.

India importing Iron and exporting to East Africa: About iron production, manufacture and export out of East African ports of Shanga, Lamu, Malindi etc., divergent views have been expressed. Researchers point out that they export and import iron by the East African ferrous experts. Felix Chami noted as to why the Coastal African people should import iron, when they were producing it. For that, he himself answered that the Azarians exported iron ore and imported finished goods or rather supplemented their products with better ones²⁵. Norman Rothman²⁶ ironically noted that the Swahili craftsmen achieved high level of expertise that their products were in demand throughout the Indian Ocean trading area, as they produced all aspects of anything including smelting, melting and forging so as to produce cast-iron and carbon steel. They were then exported to places such as India and the Persian Gulf to high price. Various observers, such as Al-Masud in the 10th century and al-Biruni, the most renowned Arab scientist of the 11th century, praised Swahili iron for its malleability. After recording all, he also noted that, in fact, India re-exported iron products from the Swahili coast to Europe, because of its superior quality²⁷. Chapurukha Kusimba²⁸ noted that mining and working of iron was important industrial activity at Malindi and other Swahili towns. The superior quality of iron products made in East Africa was impressive enough to be added on the list of African exports to India by Indian merchants who regularly visited the coast with the aid of annual monsoon winds (Horton 1996: 418). Al Masudi²⁹ commenting on the ongoing transoceanic trade between East Africa and Asia, he wrote³⁰: “*The Zanj of Malindi owned and worked iron mines, as did other towns, but, Malindi must have been the most important. East African iron was much valued in India, partly, because it was good*

quality yet easy to fashion and they became masters of skill working. The Indians were to make better swords than anyone else, and the weapons made of the iron of Zanj were used throughout the Middle East and Countries of the Indian Ocean." (Freeman – Grenville 1962:20; Shinnie 1965, 107). Here, the point is that iron waste and scrap was exported to South India and finished goods were imported into the West African ports and they were again exported to Arabian, Persian and European end-users.

Changing maritime trade, piracy, evasion and other exploitations: During the 950-1250 CE period, after Abbasid period, vigorous Islamization processes were started at different parts of East African and west coast of India. Even in South-East Asian countries also such transition started taking place. In the 13th century, the China became a maritime power and started expanding her commercial interests. With the collapse of Kadamba, Chola and Srivijaya empires, the Arabs started dominating the areas. Incidentally, the Arabs of various belief-systems were subjected to Islamization processes. The transition could easily be noted during the tolerant Abbasid, accommodative Persian (Shia) and vigorous (Sunni) periods. Thus, the persons connected with maritime activities were severely got affected by such changing processes. The metal workers, wooden experts, ship builders, and the host of all artisans were slowly getting converted with the changeover of material and non-material cultures. As the rulers, sultans and others required different types of goods and services, the former groups were also required to change. The medieval tax system with ethics, exemptions and immunities were exploited, broken and remove. As business and profits coupled with enjoyment of life was emphasized, evasion, slavery, piracy, profiteering,

buccaneering and other activities were also combined. All these affected the material and non-material culture of the involved people. New ideologies developed have made the experts, archaeologists and historians also change accordingly. Under such circumstances, the chaff has to be removed from the grains judiciously without any bias.

Unorthodox, un-Islamic and typically Indian metal goods found: Not only, ferrous even non-ferrous articles, icons and bronzes have been found in different parts of East African port cities perplexing the excavators, researchers and scholars. For example, James W Allen³¹ noted many such items at Nishapur in the northwestern part of India, now in eastern Iran. However, he never mentioned India, irrespective of the fact that the metallic objects resembled Indian counterparts or rather perfectly Indic. D. S. Rice³² had dealt with many Islamic metal work and pointed out the presence of unorthodox, un-Islamic and inconsistent designs, patterns and figurines found on the vessels, caskets and other objects. Similarly, though Agba monoliths, Oyengi phallic objects resembles Indian, India was not mentioned. The metallic objects – sprouted vessel, big spoon etc. displayed at the Kruger park, Limpopo river, South African look-like Indian, as such things are used even today in India for sacramental, liturgical and worship activities. About Shanga Lion, already, the issue has been discussed. About the pre-Mohammedan or pre-Islamic East African origin of metallurgy, much reservation is made by the present scholars in presenting the facts. Crossing such barriers, it is interpreted that during the pre-Mohammedan and pre-Islamization period, the presence of Indian metallic work is noted in the object found in the East African port-cities.

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